

Remarks

Claims 34-37 are amended herein. Claims 34-39 remain pending in the Application. No new matter has been added.

Rejection under 35 U.S.C. §112

Claims 34-39

In the Office Action, the Examiner rejected Claims 34-39 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention.

Claim 34 has been amended in a manner so as to overcome the cited rejections. Furthermore, Claims 35-37 have been amended in a manner so as to overcome the cited rejections. For this reason, Applicants respectfully submit that the rejection under 35 U.S.C. §112, second paragraph, is overcome.

Rejection under 103(a)

Claims 1-15

In the Office Action, the Examiner rejected Claims 1-15 under 35 U.S.C. §103(a) as being unpatentable over Evans et al. (5897424) in view of Yu (5435772) and further in view of Kim et al. (unknown). Applicant has reviewed the cited reference and respectfully submits that the present invention is not rendered obvious over Evans et al. in view of Yu and further in view of Kim et al. for the following rationale.

Applicant respectfully states that Claim 34 includes the feature "A polishing Apparatus comprising:

A polishing Apparatus comprising:

a polishing platen having a first central region and a first peripheral region, the first central region having a first front surface and the first peripheral region

having a second front surface, wherein the polishing platen is uniformly tapered from said first central region to said first peripheral region;

a polishing pad overlying the polishing platen;

an under pad overlying the polishing platen and underlying the polishing pad, wherein both the polishing pad and the under pad having a second central region and a second peripheral region formed of a single material having a standard compression characteristic throughout, the second central region having a first front surface and the second peripheral region having a second front surface, wherein at least a portion of the second peripheral region having the second front surface lies below the second central region having the first front surface, wherein at least a portion of said second front surface of said second peripheral region of the polishing pad and the underlying pad overlies the uniformly tapered portion of said second front surface of said first peripheral region of said polishing platen, said tapered region designed such that when said first front surface of said second central region contacts a substrate surface, said second front surface of said second peripheral region is not initially in contact with said substrate surface thereby providing a uniform center to edge polishing characteristic; and

a carrier overlying the polishing pad, wherein said carrier rotates in a direction opposite to said polishing pad and said under pad.” The support for the feature can be found throughout the Specification and Figures including page 4 lines 12-25, page 5 lines 15-20 and page 7 lines 3-8 of the Specification and Figures 1-6.

Applicant respectfully disagrees that Evans et al. teaches or renders obvious the feature of Claims 1 and 10. Applicant respectfully asserts that the combination of Evans et al. in view of Yu does not satisfy the requirements of a *prima facie* case of obviousness. In order to establish a *prima facie* case of obviousness, the prior art must suggest the desirability of the claimed invention (MPEP 2142). In particular, “if the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being

modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious" (emphasis added) (MPEP 2143.01; *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959)).

Specifically, Applicant does not understand Evans et al. to teach or render obvious wherein the polishing platen is uniformly tapered from said first central region to said first peripheral region (emphasis added). Moreover, Applicant does not understand Evans et al. to teach any type of taper of the lap at all. Instead, Applicant understands the only taper of Evans et al. to be associated with the support ring that holds the lap, and the support ring being tapered to ensure it does not contact the surface being polished.

Therefore, the Examiner's proposed modification to taper the lap of Evans et al. would fundamentally change the operation of Evans.

Moreover, the combination of Evans et al. and Yu fails to teach or suggest this claim limitation because Yu does not overcome the shortcomings of Evans et al. Applicant understands Yu to teach a system and method for polishing with a pad having varying thicknesses. In particular, Applicant respectfully asserts that Yu does not teach, describe, or suggest that the polishing platen is uniformly tapered from said first central region to said first peripheral region (emphasis added," as claimed. That is, the pad of Yu is different in thickness but Yu does not address using a uniformly tapered polishing platen. Therefore, Applicant respectfully asserts that Yu does not teach, disclose, or the claimed embodiments.

Furthermore, Applicant respectfully asserts that there is no motivation to combine the teachings of Evans et al. and Yu. Applicant understands Evans et al. to teach the use of a disposable lap cover. In particular, the cover is selected to protect against lap contamination.

In contrast, Claim 34 recites "said tapered region designed such that when said first front surface of said second central region contacts a substrate surface, said second front surface of said second peripheral region is not initially in contact with said substrate surface thereby providing a uniform center to edge polishing characteristic" (emphasis added).

Moreover, as stated in *Karsten Mfg. Corp. v. Cleveland Golf Co.*, 242 F.3d 1376, 1385 (Fed. Cir. 2001). In holding an invention obvious in view of a combination of references, there must be some suggestion, motivation, or teaching in the prior art that would have led a person of ordinary skill in the art to select the references and combine them in the way that would produce the claimed invention. Applicant does not understand Evans et al. to teach, show or render obvious any type of Lap taper which would provide any modification to combine the teachings of Evans et al. with that of Yu.

Moreover, as Applicant understands Yu to teach the polishing pad with a plurality of thicknesses, there is no motivation in Evans et al. to utilize a pad of different thicknesses of modify the shape of the lap. Instead, as stated herein, Applicant understands Evans et al. to teach a protective cover for a lap.

In addition, Neither Evans et al. nor Yu teach or render obvious a polishing platen is uniformly tapered from said first central region to said first peripheral region, wherein both the polishing pad and the under pad having a second central region and a second peripheral region formed of a single material having a standard compression characteristic throughout.

For this reason, Applicant respectfully asserts that nowhere does the combination of Evans et al. and Yu and further in view of Kim et al. teach, disclose or suggest the present invention as recited in independent Claim 34, that this claim overcomes the rejection under 35 U.S.C. § 103(a), and is thus in condition for allowance. Accordingly, Applicant also respectfully submits that

Evans et al. either alone or in combination with Yu and further in view of Kim et al. does not teach nor render obvious the present claimed invention as recited in Claims 35-39 which are dependent on an allowable Independent Claim 34 and that Claims 35-39 recite further features of the present claimed invention. Therefore, Applicant respectfully states that Claims 35-39 are allowable as pending from an allowable base Claim.

Conclusion


In light of the above amendments and remarks, Applicant respectfully requests allowance of Claims 34-39.

The Examiner is invited to contact Applicants' undersigned representative if the Examiner believes such action would expedite resolution of the present application.

Respectfully submitted,
Wagner, Murabito & Hao LLP

Date: _____

2/12/05



John P. Wagner, Jr.
Reg. No. 35,398

Westridge Business Park
123 Westridge Drive
Watsonville, California 95076
(408) 938-9060